

d) Remarks

Summary of the Office Action

Claims 1-8, 14, 18-46 and 55-65 are pending in this application. Claims 10-13, 15-17 and 47-54 have been canceled. Claims 1, 18, 20, 22, 35, 41, 55 and 60 are independent.

Claims 1-3, 8, 10-14, 18, 22, 26-32, 35, 38-41, 44-47 and 50-54 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Vargas et al. U.S. Patent 6,428,550 ("Vargas").

Claims 1, 6, 10, 12, 13, 18, 19, 22, 25, 28, 30, 31, 41, 43, 45-47, 49, 51, 52 and 54 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Williams, U.S. Patent 5,423,885 ("Williams").

Claims 18, 19, 35, 36, 38, 40-42, 44, 46-48, 50 and 52-54 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Wholey U.S. Patent 5,383,897 ("Wholey").

Claims 1-3, 8, 10, 12-14, 22, 26-28, 31, 41, 44-47, 50-52 and 54 have been rejected under 35 U.S.C. § 102(a) as being anticipated by Berg et al., WO 00/69365 ("Berg").

Claims 5, 7, 24, 42 and 48 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Williams.

Claims 37, 43 and 49 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wholey.

Claims 4 and 23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Berg.

Claims 5, 6, 24, 25, 42, 43, 48 and 49 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Berg in view of Williams and further in view of Wholey.

Claims 20, 21 and 55-65 have been indicated be allowable.

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Claims 15-17, 33 and 34 have been indicated be allowable if rewritten in independent form including the limitations of the base claims and any intervening claims.

Applicant's Response

At the outset, applicant would like to thank the Examiner for courtesies extended during a telephonic interview on August 15, 2003. Pursuant to discussions during the telephonic interview, Applicant has amended independent claims 1, 18, 22, 35 and 41. Each of these independent claims will now be discussed individually.

Claim 1 has been amended to recite an apparatus for closing a wound comprising first and second elongated substrates that include first surfaces covered by a multiplicity of barbs for adhering to the wound and second surfaces configured to mate with each other. Support for this claim language can be found in Figures 10A and 10B, and in the specification from page 13, line 21 to page 14, line 2. Applicant respectfully asserts that the prior art fails to disclose these features.

In view of the above, applicant believes that claim 1 (and claims 2-8 and 14, which depend from claim 1) are currently in condition for allowance.

Claim 18 currently recites a method for performing an anastomosis including the steps of "positioning the elongated tubular substrate within a vessel so that the multiple rows of barbs are directed towards an interior or exterior surface of the vessel" and "squeezing the vessel against the multiple rows of barbs to adhere the interior or exterior surface of the vessel". Claim 18 stands rejected as being anticipated by Vargas, Williams, Wholey and Berg.

Vargas teaches a system for connecting blood vessels, but fails to disclose positioning a substrate within a vessel

and then squeezing the vessel against the substrate to adhere to multiple rows of barbs on the substrate. Williams discloses a coiled sheet stent adapted to be positioned within a patient's blood vessel and expanded from a reduced delivery profile to an expanded deployed profile. Williams does not teach a "method of forming an anastomosis". Moreover, because the coiled sheet stent of Williams would collapse to a smaller diameter if squeezed to attach tissue, the Williams structure cannot be used to perform the claimed method. Wholey discloses a barbed pledget for sealing punctures within a blood vessel. However, Wholey fails to teach a "method for performing an anastomosis" using an elongated "tubular" substrate. Berg teaches a method for closing septal defects in a patient's heart. Berg clearly does not teach positioning an elongated tubular substrate within a "vessel" and squeezing the "vessel" against multiple rows of barbs. By contrast, Berg's tubular substrate is for positioning a plug 2800 within hole 2980 in a patient's heart wall 2950.

In view of the above, applicant believes that claim 18 (and claim 19, which depends from claim 18) are currently in condition for allowance.

Claim 22 currently recites an apparatus for closing wounds comprising an elongated substrate having first and second surfaces, and "multiple rows of barbs projecting from the first and second surfaces". Claim 22 stands rejected as anticipated by Vargas, Williams and Berg.

Vargas does not teach multiple rows of barbs projecting from a first surface and multiple rows of barbs projecting from a second surface. As stated above, Williams discloses a coiled sheet stent adapted to be positioned within a patient's blood vessel and that structure cannot constitute the claimed structure. Moreover, Williams does not teach an elongated substrate including first and second surfaces

including multiple rows of barbs. Berg also fails to teach an elongated substrate including first and second surfaces having multiple rows of barbs.

In view of the above, applicant believes that claim 22 (and claims 23-34, which depend from claim 22) are currently in condition for allowance.

Claim 35 currently recites an apparatus for closing wounds comprising an elongated substrate "in the form of a tube" and including an interior lumen that forms a first surface including "multiple rows of barbs having tissue-penetrating distal ends". Claim 35 stands rejected as anticipated by Vargas and Wholey.

Vargas does not disclose an elongated substrate in the form of a tube including an "interior lumen" that forms a first surface including "multiple rows of barbs having tissue-penetrating distal ends". As stated above, Wholey discloses a barbed pledget for sealing punctures within a blood vessel, and does not show or suggest an elongated substrate "in the form of a tube".

In view of the above, applicant believes that claim 35 (and claims 36-40, which depend from claim 35) are currently in condition for allowance.

Claim 41 currently recites an apparatus for closing wounds comprising an elongated substrate "in the form of a tube" and including an exterior surface including "multiple rows of barbs having tissue-penetrating distal ends". Claim 41 stands rejected as anticipated by Vargas, Williams, Wholey and Berg.

Vargas does not disclose an elongated substrate in the form of a tube including an exterior surface including "multiple rows of barbs having tissue-penetrating distal ends". As stated above, Williams described a coiled sheet stent adapted to be positioned within a patient's blood vessel having a structure

that cannot correspond to the claimed device. Moreover, Williams provides no teaching or suggestion that the stent taught there could be used to close a wound, the rejection being based on nothing other than hindsight gleaned from applicants' disclosure. Wholey and Berg also do not remedy the shortcomings of the prior art as discussed above.

In view of the above, applicant believes that claim 41 (and claims 42-46, which depend from claim 41) are currently in condition for allowance.

CONCLUSION

In view of the foregoing, applicant respectfully submits that the application is in condition for allowance. An early and favorable action is earnestly requested.

Respectfully submitted,



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